Welcome to the TUM SEED Center Newsletter!

Spring 2022

Opening Note

Halfway through Our Journey

Prof. Frank-Martin Belz TUM SEED Center Academic Director

Dear SEED members & friends,

While it is hard to believe, we already reached halftime in our five-year project funded by DAAD. This is an opportunity to pause for a moment and draw the first resume:

The start of the project coincided with the beginning of the COVID-19 pandemic. From one week to another we had to postpone the planned kick-off meeting in Munich, cancel all flights and switch online to meet each other and engage in academic exchange regarding Sustainable Energies, Entrepreneurship and Development (SEED). Despite these challenging circumstances we managed to get started and accomplished a lot:

· We set up the TUM SEED Center and eight SEED chapters at the partner universities in the Global South;
We launched a SEED doctoral program and started a series of SEED research seminars;

We built the foundations of eight living labs in the Global South, i.e. sustainable energy systems for rural communities without access to electricity.

We eventually met in person at the annual symposium in Munich in October 2021 with more than 70 attendees.

On my first trips to Uganda and Kenya in April 2022, I got a first-hand impression of the progress we made over the past: It was wonderful to see the high engagement of the national SEED teams, the great interest of the students, and the creative ideas of the community members in the living labs. The visits to the partner universities and the field trips to the living labs also mark the beginning of further academic exchange in the upcoming months.

Most recently, the TUM SEED Center has awarded a number of scholarships, such as:

- Two doctoral students in Uganda and Kenya starting at Makerere University and Jomo Kenyatta University of Agriculture and Technology in July 2022;
- Five master’s students from the partner universities, who will participate in the international summer school “Sustainable Entrepreneurship: Theory and Practice” at TUM in July 2022;
- Master students from TUM, who will collect data regarding the electrification rate and entrepreneurial activities in the living labs, and conduct joint research.

And as we move from the COVID-19 pandemic to an endemic, there is more to come: We plan to enhance and intensify the personal academic exchange from North to South, from South to North, and from South to South. If you have any ideas, suggestions, and proposals for research and teaching at the intersection of sustainable energies and entrepreneurship in the Global South, we invite you to discuss them with us, more specifically Esther Salvi (research) and Johannes Winklmaier (teaching). The TUM SEED Center will announce and award a number of mobility grants for senior scholars, and doctoral and master students alike. We are looking forward to academic exchange in the next two and a half years, and conducting “research with impact” that results in joint publications and better living conditions for people without access to electricity.

Enjoy reading the spring issue of the SEED Newsletter 2022!

Kind regards,

Frank-Martin Belz

Academic Director TUM SEED Center
News Highlight

Let Life Flow: Water for Kyampisi | Call for Donations

Two billion people around the world do not have access to clean water. That’s 1 out of 4 people worldwide. This holds true for Uganda: in Kyampisi, villagers share with animals water from a swamp.

We, TUM SEED Center and Makerere University (Uganda) are collaborating with the villagers of Kyampisi to assure them access to clean drinking water. We launched the LET LIFE FLOW Crowdfunding Campaign with the objective of raising €20,000 to implement a sustainable water system in Kyampisi.

We still need to raise €15,660 to reach our goal.

Consider donating to this campaign and sharing the news with your broader network! We are counting on you!

Donations are tax-deductible.
Still, relatively at a nascent stage, the field of sustainable entrepreneurship has been a subject of a number of research and scholarly work in recent years. Just what exactly is it, what are the processes involved, and what are some of the models of sustainable entrepreneurship? This was the theme of a research seminar on Wednesday, 6 April 2022 at the Jomo Kenyatta University of Agriculture and Technology (JKUAT) by visiting Professor, Prof. Dr. Frank-Martin Belz, and doctoral researcher, Mohammed Bendaanane.
The JKUAT SEED center in collaboration with scholars from the Technical University of Munich (TUM), conducted its first joint research seminar on 30th March 2022. Prof. Markus Disse who is the chair of hydrology and river basin management at TUM was the keynote speaker. The seminar focused on the following thematic areas in the discipline of hydrology: 1) flood management, flood hazards, inundation mapping, and flood forecasting 2) Drought management, modeling, and forecasting 3) Dealing with uncertainties in hydrological models.

First SEED Doctoral Research Meetings on Entrepreneurship and Engineering Research
In a continuous effort to encourage research collaborations between SEED researchers and international partners, the TUM SEED center virtually kick-started the Doctoral Research Meetings on Entrepreneurship and Engineering. Back in April, researchers from TUM and partner universities met to discuss their current research in entrepreneurship and management, ranging from community entrepreneurship to entrepreneurial intentions in the Global South. Similarly, this May, scholars from engineering exchanged about their research topics in mini-grids and renewable technologies, water management and irrigation, biogas production, and land management for energy projects. These meetings represent a starting point to explore potential avenues for future research partnerships and joint publications. Interested in presenting your research along the lines of sustainable energies and entrepreneurship in the Global South? Then feel free to send an email to esther.salvi@tum.de.

Living Labs & Communities

Opening of Tunnel-Type Solar Dryer in SEED Living Lab Huyro in Peru

On Monday, May 23rd, our partners at PUCP celebrated the opening
of the tunnel-type solar dryer in our Living Lab community. The dryer will be used and managed by a local producers’ association. Access to this technology will contribute to the generation of added-value products such as dried oranges, bananas, pineapples, pumpkins, tea, coffee, and other local products.

Since last year, to support their value chains, we’ve held two entrepreneurship workshops with the association of producers to strengthen their business models.

Out and About in SEED Living Labs: Kyampisi, Uganda, and Olderkesi, Kenya
Visits to the SEED centers across the globe are an ongoing activity for our research team. The TUM SEED Center director, together with doctoral researcher Moahmemd Bendaanane, were out and about in the Living Labs in Kenya and Uganda at the beginning of April.

A significant aspect of our work is the cultural exchange and the dialogues through community engagement. Prof. Bekz and Mohammed had the chance to experience this firsthand while engaging with the communities in Kyampisi, Uganda, and Olderkesi in Kenya. The TUM SEED researchers were received by the local SEED team from Makerere University and Jomo Kenyatta University of Agriculture & Technology.

Exchanges, Training, and Hands-on Workshop: Pablo, TUM SEED Doctoral Researcher, Conducts Workshops with Members of The Olderkesi Living Lab Community
The research partnership and collaboration between the TUM SEED Center and its partner universities continue to evolve as many TUM members make their first field research trips to our living labs, around the Global South. Pablo Sarmiento, a SEED doctoral researcher at the TUM’s School of Engineering and Design, paid a visit to the Living Lab in Olderkesi and conducted two trainings with members of the community on water management for agricultural usage and water storage techniques to counter water-borne diseases.

Read More

Publications & Articles

Fresh off Press

**An Exploration of the Land–(Renewable) Energy Nexus: A New SEED Scientific Publication by Doctoral Researcher Bouchra Lamhamedi**

Congratulations to TUM SEED Center
doctoral research, Mohamad Javad Bardi co-authors, prof. De Vries, for their publication "An Exploration of The Land–(Renewable) Energy Nexus" in the journal "Land".

Their study critically reviews the land–energy nexus with the aim to understand and explain how the uptake of renewable energy is shaping the land–energy nexus and how renewable energy technologies are evolving and interacting in different regions of the world, particularly in the Global South.